Practical No:- 1 ( c )

1. c Write a program to perform the matrix addition, multiplication, and transpose operation[ menu driven]

Practical implementation:-

Code:-

C++ program - add two matrices

#include <stdio.h>

**int** main()

{

**int** rows, cols;

    //Initialize matrix a

**int** a[][3] = {

                    {1, 0, 1},

                    {4, 5, 6},

                    {1, 2, 3}

                };

    //Initialize matrix b

**int** b[][3] = {

                      {1, 1, 1},

                      {2, 3, 1},

                      {1, 5, 1}

                 };

    //Calculates number of rows and columns present in given matrix

    rows = (**sizeof**(a)/**sizeof**(a[0]));

    cols = (**sizeof**(a)/**sizeof**(a[0][0]))/rows;

    //Array sum will hold the result

**int** sum[rows][cols];

    //Performs addition of matrices a and b. Store the result in matrix sum

**for**(**int** i = 0; i < rows; i++){

**for**(**int** j = 0; j < cols; j++){

            sum[i][j] = a[i][j] + b[i][j];

        }

    }

    printf("Addition of two matrices: \n");

**for**(**int** i = 0; i < rows; i++){

**for**(**int** j = 0; j < cols; j++){

           printf("%d ", sum[i][j]);

        }

        printf("\n");

    }

**return** 0;

}

Output:-

